

**Green Construction Research Training Center / Wilden Living Lab Workshop**

**January 18, 2024**

**8:00am – 4:00pm**

**Four Points by Sheraton Kelowna Airport**

**Registration Check-In: 8:00 – 8:30am**

Session	Presenter(s)	Presentation Topic	Timelines
Welcome /MC	Dan Winer – Executive Director, Canadian Home Builders Association Central Okanagan	Opening & CHBA-CO update	8:30am
Session 1	<p>Danielle Wensink – Director, Conservation &amp; Energy Management, FortisBC  (30 mins)</p> <p>Bryce Millman – Conservation &amp; Energy Management Engineer and Max Mathies – Program Manager, Peak Capacity Mitigation, Fortis BC  (15 mins)</p>	<p><b>Future of the Energy System</b></p> <ul style="list-style-type: none"> <li>▪ Importance of a diversified energy system</li> <li>▪ The role of electricity and renewable gas play in decarbonizing buildings</li> <li>▪ Peak pressure and demand response</li> <li>▪ How it all roles up to the future of the energy system</li> <li>▪ Electrification of Kelowna study</li> <li>▪ Renewable Natural Gas (RNG)</li> </ul> <p><b>How Battery Storage Can Support Demand Response and Build Energy Resilience in our Homes: A Study to Learn More?</b></p> <ul style="list-style-type: none"> <li>• How residential battery storage systems may be used to provide grid relief during peak periods: <ul style="list-style-type: none"> <li>○ the capacity available during these times</li> <li>○ how reliable signaling is from the utility to the battery</li> <li>○ impact to the homeowner</li> </ul> </li> <li>• Comparing the findings to direct-to-grid discharge for batteries, and to consider EV charging as another load that could be battery-connected</li> <li>• FortisBC additional research to understand battery storage systems and market landscape</li> </ul>	8:45-9:30am
Session 2	<p>Dr. Shahria Alam, UBC &amp; Stephen Speers, Okanagan College (GCRTC partnership)  (30 mins)</p>	<p><b>GCRTC Research Focus &amp; Student Experiential Learning (UBC &amp; Okanagan College)</b></p> <ul style="list-style-type: none"> <li>▪ The objective of GCRTC Partnership between UBC and Okanagan College</li> <li>▪ Importance of Major Industry Partners and Mitacs involvement</li> </ul>	9:30 - 10:00am

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		<ul style="list-style-type: none"> <li>▪ Wilden Living Lab history – a brief description of WLL Phase I and Phase II research objectives.</li> <li>▪ UBC Graduate Students facilitating the research data collection and analysis with Wilden Living Lab</li> <li>▪ Okanagan College faculty focus on Work Integrated Learning opportunities for Okanagan College students</li> <li>▪ Training provided by faculty and industry expertise with the WLL project for Okanagan College students</li> </ul>	
<b>Morning Break</b>			<b>10:00 - 10:15am</b>
<b>Session 3</b>	<p><b>Trent Novakowski – Genesis Buildings Controls Ltd.</b></p> <p>(15 mins)</p> <p><b>UBC Graduate Research &amp; PhD Candidate WLL team- Anber Rana &amp; S. Rubaiya Sultana</b></p> <p>(45 mins)</p>	<p><b>Energy Efficiency Technologies</b></p> <ul style="list-style-type: none"> <li>▪ Placement of sensors – WLL1 &amp; WLL2 home(s)</li> <li>▪ Determining the size of the system and importance of right sizing</li> <li>▪ Results of the latest energy upgrade technologies in residential buildings in Canada</li> <li>▪ Technologies used in Wilden Living Lab projects and discussion on publication</li> <li>▪ Life Cycle Sustainable Assessment (LCSA)</li> <li>▪ Embodied Carbon</li> </ul>	<b>10:15 - 11:15am</b>
<b>Session 4</b>	<p><b>Scott Tyerman &amp; Dominique Caron – AuthenTech Homes</b></p> <p>(30 mins)</p> <p><b>Gilles Lesage – Total Home Solutions</b></p> <p>(15 mins)</p>	<p><b>Building the Future</b></p> <ul style="list-style-type: none"> <li>▪ Integrated Design Process (IDP) – Importance &amp; lessons learned</li> <li>▪ Innovative envelope design</li> <li>▪ Efficient space heating &amp; cooling</li> <li>▪ Cost of building a net-zero home (example: Next Generation Home)</li> </ul> <p><b>Blueprints for Efficiency</b></p> <ul style="list-style-type: none"> <li>▪ Early energy modeling</li> <li>▪ Mechanical systems sizing (lessons learned from WLL phase 1)</li> <li>▪ Decision guide for your home design</li> <li>▪ Grants application process</li> <li>▪ IDP checklist and organization</li> </ul>	<p><b>11:15 – 11:45am</b></p> <p><b>11:45am – 12pm</b></p>
<b>LUNCH</b>			<b>12:00 noon - 1:15pm</b>

*Subject to change*

<b>Session 5</b>	<b>Karin Eger-Blenk, Wilden Group</b>  <b>(30 mins)</b>	<b>Greening our Neighbourhoods</b> <ul style="list-style-type: none"> <li>▪ Lessons learned from 2003 – 2023</li> <li>▪ Take-aways from the Wilden Living Lab so far</li> <li>▪ Navigating energy rates</li> <li>▪ Sustainable &amp; cost-efficient multifamily development</li> <li>▪ Creating a movement</li> </ul>	<b>1:15 – 1:45pm</b>
<b>Session 6</b>	<p style="text-align: center;"> <b>Scott Tyerman</b>  <b>AuthenTech Homes</b> </p> <p style="text-align: center;"> <b>Carol Suhan &amp; Tanya Rumak</b>  <b>FortisBC</b> </p> <p style="text-align: center;"> <b>Trent Novakowski</b>  <b>Genesis Building Controls</b> </p> <p style="text-align: center;"> <b>Stephen Speers</b>  <b>Okanagan College</b> </p> <p style="text-align: center;"> <b>Don Pineau</b>  <b>Quality Air Care</b> </p> <p style="text-align: center;"> <b>Gilles Lesage</b>  <b>Total Home Solutions</b> </p> <p style="text-align: center;"> <b>Karin Eger-Blenk</b>  <b>Wilden Group</b> </p> <p style="text-align: center;"> <b>Dr. Shahria Alam &amp;</b>  <b>Dr. Kasun Hewage UBC</b> </p> <b>(1 hr)</b>	<p style="text-align: center;"> <b>Panel Discussion</b>  <b>and</b>  <b>Q &amp; A</b> </p>	<b>1:45 – 2:45pm</b>
<b>Closing &amp; Networking</b>			<b>2:45 - 4:00pm</b>